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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
SHINGLES, KRISTIE D	

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/872,920	CHANDRA ET AL.	
	Examiner	Art Unit	
	April L. Baugh	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-42 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 20050121.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant amended claims 7, 16, and 34 and added new claims 39-42, therefore claims 1-42 are now pending.

Response to Arguments

1. Applicant's arguments filed 1/21/05 have been fully considered but they are not persuasive. Applicant argues that the prior art of record does not teach how other processes deal with (such as synchronize) old data they previously received from a dead primary process as well as new data they received after the dead primary process restarts. However it is the examiner's position that Kidder et al. teaches the above limitation (abstract, column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. states, 'If one or more of the primary processes on a particular element experiences a software fault, the processor on the line card may terminate and restart the failing process or processes. Once the process or processes are restarted, a copy of the last known dynamic state can be retrieved...and initiate an audit process to synchronize retrieved state with the dynamic state of the associated other processes'. The copy of the last known dynamic state is equivalent to the first set of data provided prior to the failure (death) of the process and the dynamic state of the associated processes is equivalent to the second set of data received after the process restarts. These sets of information are synchronized once the process is restarted and thus Kidder et al. teaches the above limitation.

Applicant's arguments with respect to claims 1-42 in reference to synchronizing if the time period does not expire have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-11 and 26-42 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,694,450 to Kidder et al. in view of Applicant Admitted Prior Art (AAPA) and further in view of Miller et al. (US 6,049,838)

Regarding claims 1 and 28, Kidder et al. teaches a computer implemented method and machine-readable medium comprising: synchronizing the first set of data with a second set of data, the second set of data received from the network process after the network process restarts (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach receiving a first set of data from a network process; determining death of the network process; clearing the first set of data if a time period expires. AAPA teaches receiving a first set of data from a network process; determining death of the network process; clearing the first set of data if a time period expires (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the

art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by receiving a first set of data from a network process; determining death of the network process; clearing the first set of data if a time period expires because this data is invalid and this prevents the system from processing invalid data.

Kidder et al. in view of AAPA does not teach synchronizing the first set of data with a second set of data if the time period does not expire. Miller et al. teaches synchronizing the first set of data with a second set of data (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) if the time period does not expire (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. in view of AAPA by synchronizing the first set of data with a second set of data if the time period does not expire because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 7 and 34, Kidder et al. teaches a computer implemented method and machine-readable medium comprising: detecting death of a process; restarting the network process; restoring a set of configurations to the network process; synchronizing the first set of data with a second set of data, the second set of data having been generated before the death of the network process (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach if the time period expires, then clearing the second set of data. AAPA teaches if the time period expires, then clearing the second set of data (page 2,

section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by if the time period expires, then clearing the second set of data because this data is invalid and this prevents the system from processing invalid data because this data is invalid and this prevents the system from processing invalid data.

Kidder et al. in view of AAPA does not teach if a first set of data is generated before a time period expires, then synchronizing the first set of data with a second set of data. Miller et al. teaches if a first set of data is generated before a time period expires (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16), then synchronizing the first set of data with a second set of data (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. in view of AAPA by if a first set of data is generated before a time period expires, then synchronizing the first set of data with a second set of data because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 39, Kidder et al. teaches a method of a first network process, comprising: receiving data from a second network process; receiving new data from the second network process after it has been restarted; storing the new data as a temporary data; and synchronizing the stale data and the new data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach receiving a death notification regarding the second network process; determining the data received before the death of the second network process is stale based on the death notification. AAPA teaches receiving a death notification regarding the second network process; determining the data received before the death of the second network process is stale based on the death notification (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by receiving a death notification regarding the second network process; determining the data received before the death of the second network process is stale based on the death notification because this data is invalid and this prevents the system from processing invalid data.

Kidder et al. in view of AAPA does not teach synchronizing the stale data and the new data if a done signal is received from the second network process before a timer expires. Miller et al. teaches synchronizing the stale data and the new data (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) if a done signal is received from the second network process before a timer expires (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. in view of AAPA by synchronizing the stale data and the new data if a done signal is received from the second network process before a timer expires because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 2, Kidder et al. teaches the computer implemented method of claim 1 (column 3, lines 42-52).

Kidder et al. teaches further comprising indicating the first set of data as stale when the network process is determined to be dead. AAPA teaches further comprising indicating the first set of data as stale when the network process is determined to be dead (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by further comprising indicating the first set of data as stale when the network process is determined to be dead because this data is invalid and this prevents the system from processing invalid data.

Regarding claims 3, 9, 30,and 36, Kidder et al. teaches the computer implemented method of claim 1, 7, 28, and 34 (column 3, lines 42-52).

Kidder et al. teaches wherein expiration of the time period is determined with a timer maintained after the network process is determined to be dead. AAPA teaches wherein expiration of the time period is determined with a timer maintained after the network process is determined to be dead (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by wherein expiration of the time period is determined with a timer maintained after the network process is determined to be dead because this data is invalid and this prevents the system from processing invalid data.

Regarding claims 6, 11, 33, and 38, Kidder et al. teaches the computer implemented method of claim 1, 7, 28, and 34 (column 3, lines 42-52).

Kidder et al. does not teach wherein further comprising clearing the second set of data if the time period expires and a done signal is not received. AAPA teaches wherein further comprising clearing the second set of data if the time period expires and a done signal is not received (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by wherein further comprising clearing the second set of data if the time period expires and a done signal is not received because this data is invalid and this prevents the system from processing invalid data.

Regarding claims 8 and 35, Kidder et al. teaches the computer implemented method of claim 7 and 34 (column 3, lines 42-52).

Kidder et al. does not teach indicating the second set of data as stale when the network process is detected as dead. AAPA teaches indicating the second set of data as stale when the network process is detected as dead (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by indicating the second set of data as stale when the network process is detected as dead because this data is invalid and this prevents the system from processing invalid data.

Regarding claim 26, Kidder et al. teaches the system of claim 24 (column 3, lines 42-52).

Kidder et al. does not teach further comprising the second network element to clear the first and second set of data if a time period expires. AAPA teaches further comprising the second network element to clear the first and second set of data if a time period expires (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary

skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by further comprising the second network element to clear the first and second set of data if a time period expires because this data is invalid and this prevents the system from processing invalid data.

Regarding claim 27, Kidder et al. teaches the system of claim 24 (column 3, lines 42-52). Kidder et al. does not teach further comprising the second network element to mark the first set of data as stale when the first network process dies. AAPA teaches further comprising the second network element to mark the first set of data as stale when the first network process dies (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by further comprising the second network element to mark the first set of data as stale when the first network process dies because this data is invalid and this prevents the system from processing invalid data.

Regarding claim 40, Kidder et al. teaches the method of claim 39 (column 3, lines 42-52).

Kidder et al. does not teach wherein the timer is initialized upon receipt of the death notification. AAPA teaches wherein the timer is initialized upon receipt of the death notification (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by wherein the timer is initialized upon receipt of the death notification because this allows the system to track when data becomes invalid and this prevents the system from processing invalid data.

Regarding claim 41, Kidder et al. teaches the method of claim 40 (column 3, lines 42-52).

Kidder et al. does not teach wherein the death notification is based on an absence of a headbeat from the second network process. AAPA teaches wherein the death notification is based on an absence of a headbeat from the second network process (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by wherein the death notification is based on an absence of a headbeat from the second network process because this is one of many known methods in the art to track whether a process or device is alive or whether it is dead and this prevents the system from processing invalid data.

Regarding claim 42, Kidder et al. teaches the method of claim 39 (column 3, lines 42-52).

Kidder et al. does not teach further comprising clearing the stale data and the new data if the timer expires before the done signal is received. AAPA teaches further comprising clearing the stale data and the new data if the timer expires before the done signal is received (page 2, section 0002 and page 3, section 0006-0007). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by further comprising clearing the stale data and the new data if the timer expires before the done signal is received because this data is invalid and this prevents the system from processing invalid data.

Regarding claims 4, 10, 31, and 37, Kidder et al. teaches the computer implemented method of claim 1, 7, 28, and 34 wherein the first set of data and the second set of data are synchronized after a done signal is received (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claims 5 and 32, Kidder et al. teaches the computer implemented method of claim 1 and 28 further comprising restoring a set of configurations to the network process after the network process restarts (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

3. Claims 12-25 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,694,450 to Kidder et al. in view of Miller et al. (US 6,049,838)

Regarding claim 12, Kidder et al. teaches a network element comprising: a cross connect control module to host a first and second network process, the first network process to generate a first set of data after restarting and the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting; and a traffic card coupled to the cross connect module, the traffic card to process a set of traffic with the synchronized first and second set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting upon determining a time period has not expired, the time period beginning when the first network process dies. Miller et al. teaches the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) upon determining a time period has not expired, the time period beginning when the first network process dies (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention

was made to further modify the distributed process redundancy of Kidder et al. by having the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting upon determining a time period has not expired, the time period beginning when the first network process dies because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 16, Kidder et al. teaches a network element comprising: a first processor to execute a first and second network process, the first network process to generate a first set of data before restarting and a second set-of data after restarting, the second network process to synchronize the first and second set of data; and a second processor coupled to the first processor, the second processor to process a set of traffic using the first set of data before the first network process restarts and the third set of data after the first network process restarts (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting upon determining a time period has not expired, the time period beginning when the first network process dies. Miller et al. teaches the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) upon determining a time period has not expired, the time period beginning when the first network process dies (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention

was made to further modify the distributed process redundancy of Kidder et al. by having the second network process to synchronize the first set of data with a second set of data generated by the first network process before restarting upon determining a time period has not expired, the time period beginning when the first network process dies because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 20, Kidder et al. teaches a network element comprising: a first memory to host a first network process, the first network process to generate a first set of data before restarting and a second set of data after restarting; a second memory coupled to the first memory, the second memory to host a second network process, the second network process using the first and second set of data; and a third memory coupled to the first and second memory, the third memory to store the first set of data before the first network processes restarts and to store a synchronized set of the first and second set of data after the first network process restarts (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach the second network process using the first and second set of data if a time period has not expired, the time period beginning when the first network process dies. Miller et al. teaches the second network process using the first and second set of data if a time period has not expired, the time period beginning when the first network process dies (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) upon determining a time period has not expired, the time period beginning when the first network process dies (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to further modify the distributed process redundancy of Kidder et al. by having the second network process using the first and second set of data if a time period has not expired, the time period beginning when the first network process dies because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 24, Kidder et al. teaches a system comprising: a first network element to execute a first network process the first network process to generate a first set of data before restarting and a second set of data after restarting; and a second network element coupled to the first network element, the second network element to execute a second network process, to determine the first network process died, to start a counter upon determining the first network process has died, to store the first and second set of data, and to synchronize the first and second set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Kidder et al. does not teach to synchronize the first and second set of data upon determining the counter has not exceeded a time period. Miller et al. teaches to synchronize the first and second set of data upon determining the counter has not exceeded a time period (abstract, column 4,lines 22-26, column 5, lines 17-27 and 38-42, column 8, lines 30-35, column 13, lines 33-40) upon determining a time period has not expired, the time period beginning when the first network process dies (column 5, lines 44-52, column 13, lines 7-17, column 14, lines 2-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the distributed process redundancy of Kidder et al. by to synchronize the first and second set of data upon determining the counter has not exceeded a

time period because this allows to system to only maintain fresh information versus synchronizing stale information with current information.

Regarding claim 13, Kidder et al. teaches the network element of claim 12 wherein the cross connect module comprises a first and second memory to host the first and second network process (column 3, lines 42-52 and column 3, line 63 – column 4, line 6).

Regarding claim 14, Kidder et al. teaches the network element of claim 12 wherein the traffic card comprises a set of processors to process the first and second set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6).

Regarding claim 15, Kidder et al. teaches the network element of claim 12 wherein the cross connect module comprises: a first memory to host the first network process; a second memory coupled to the first memory, the second memory to host the second network process; and a third memory coupled to the first and second memory, the third memory to store the first set of data, second set of data, and the synchronized set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claim 17, Kidder et al. teaches the network element of claim 16 wherein the first processor comprises a memory to store the first, second and third set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6).

Regarding claim 18, Kidder et al. teaches the network element of claim 16 further comprising the first processor to allocate a first memory to the first network process and a second memory to the second network process (column 3, lines 42-52 and column 3, line 63 – column 4, line 6).

Regarding claim 19, Kidder et al. teaches the network element of claim 16 further comprising the first processor to allocate a first memory to the first network process, a second memory to the second network process, and a third memory to store the first set of data, the second set of data, and the third set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claim 21, Kidder et al. teaches the network element of claim 20 wherein the first memory, the second memory and the third memory are main memory (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claim 22, Kidder et al. teaches the network element of claim 20 wherein the first memory, the second memory, and the third memory are mass storage (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claim 23, Kidder et al. teaches the network element of claim 20 wherein the first memory, the second memory, and the third memory are a set of regions of a memory (column 3, lines 42-52 and column 3, line 63 – column 4, line 6 and column 42, line 66 – column 43, line 12).

Regarding claim 25, Kidder et al. teaches the system of claim 24 wherein the second network element comprises: a first memory to store the first set of data and the synchronized set of data; and a second memory to store the second set of data (column 3, lines 42-52 and column 3, line 63 – column 4, line 6).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to process synchronization restart in general: Porcaro, Fuchs et al., McAllister et al., Jeffords et al., Arnoff et al., and Hickson et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April L. Baugh whose telephone number is 571-272-3877. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALB

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER